CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

CLEANUP AND ABATEMENT ORDER NO. 6-98-72
WDID NO. 6A099803N01

Requiring Joe Erik Tveten and Sarbjit Singh Kang to Clean Up and Abate the Effects of the
Discharge of Petroleum Products to the Ground Waters of the
Lake Tahoe Hydrologic Unit at 3208 Highway 50 in Meyers, El Dorado County

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The California Regional Water Quality Control Board, Lahontan Region (Regional Board), finds:

1. The Beacon Gas Station is located at 3208 Highway 50 in Meyers, El Dorado County Assessor's Parcel Number 034-321-191. The property and gas station is owned by Joe Erik Tveten. Mr. Tveten leases the gas station to the J. E. Tveten Corporation, which subleases the gas station to Sarbjit Singh Kang to operate. In 1996, Joe Erik Tveten leased the real property to the J. E. Tveten Corporation. On March 19, 1998, this Regional Board issued Cleanup and Abatement Order No. 6-98-18 to the J. E. Tveten Corporation. This new Cleanup and Abatement Order serves to name the property owner and the operator as responsible parties and provides new orders in the cleanup and abatement of pollutants at and from the property.

2. During the week of July 8 through July 12, 1996, three 12,000 gallon gasoline underground storage tanks, one 12,000 gallon diesel underground storage tank, one 350 gallon used oil underground storage tank, and one 350 gallon heating oil (diesel) underground storage tank were removed from the gas station. Contaminated soil was observed in the tank basin beneath the former heating oil tank and beneath the product piping by the station building. The highest concentration left in soil within the excavation was 140 ppm as Total Petroleum Hydrocarbons (Diesel). A ground water sample collected from approximately 16 feet below ground surface in the excavation bottom contained petroleum hydrocarbons:

Ethylbenzene	0.55 µg/l
Xylenes	5.6 µg/l
Methyl tert-butyl ether (MTBE)	15.0 µg/l
Total Petroleum Hydrocarbons (Gasoline)	180.0 µg/l
Total Petroleum Hydrocarbons (Diesel)	740.0 µg/l

3. The El Dorado County Department of Environmental Management approved a workplan submitted by Mr. Tveten's consultant, Wheeldon and Associates, to drill five temporary borings around the tank basin to define the extent of ground water pollution. Only one water sample, #W960827-2, collected on August 27, 1996, contained petroleum hydrocarbons:

Toluene	1.0 µg/l
Xylenes	0.69 µg/l
Total Petroleum Hydrocarbons (Gasoline)	150.0 µg/l

4. After submitting a workplan to the Regional Board, water samples were collected from four temporary borings on September 12, 1996. The sample locations were downgradient of the tank basin and sample locations from August 27, 1996. All water samples showed non-detect levels of petroleum hydrocarbons. No corrective actions were required for ground water or soil contamination at the site. The Regional Board Executive Officer issued a case closure letter on September 24, 1996.

5. In August 1997, the leak detection alarm system sounded at the Beacon Station, indicating a release in the underground storage tank system. The location of the release was identified as being in an "O" ring connection beneath one of the dispensers for the regular unleaded gasoline line. The release was repaired by Mr. Tveten's contractor on August 28, 1997. Neither the alarm sounding nor the piping repair was reported to El Dorado County.

6. On September 30, 1997, the South Tahoe Public Utility District (STPUD) collected a monthly water sample from the two Arrowhead municipal water supply wells on the corner of Arrowhead and Hopi in Meyers. A laboratory analysis detected MTBE at 1.4 µg/l in the sample from the Arrowhead #2 well. Subsequent monthly water samples until February 1998 showed MTBE ranging from 1.8 to 3.3 µg/l in both municipal supply wells.

7. In a November 25, 1997 letter, the Regional Board Executive Officer directed Mr. Tveten to submit a workplan for a ground water investigation to determine whether the Beacon Gas Station was the source of MTBE in the Arrowhead municipal supply wells. The Beacon Gas Station is approximately 1,300 feet from the Arrowhead municipal supply wells in an assumed upgradient direction. No workplan was received by the December 31, 1997 deadline.

8. The Regional Board Executive Officer issued a January 16, 1998 letter to Mr. Tveten, informing him that the ground water investigation workplan was delinquent. Mr. Tveten was warned that if the workplan was not received at the Regional Board office by January 23, 1998, he could be subject to an administrative civil liability.

9. Mr. Tveten's consultant, Vector Engineering, submitted a workplan to the Regional Board on January 27, 1998. The workplan proposed to drill six temporary borings at the Beacon Gas Station to collect soil and water samples. Regional Board staff approved the workplan on January 30, 1998, recommending that water samples be collected from eight borings at the gas station, instead of six.

10. A report with preliminary ground water investigation results was submitted to the Regional Board on February 26, 1998. The report shows that laboratory analyses detected petroleum hydrocarbons in six of the eight water samples collected at the Beacon Gas Station on February 13-16, 1998. The highest concentrations were detected adjacent to the underground storage tank basin, in sample GP-7:

Toluene	920 µg/l
Ethylbenzene	58 µg/l
Xylenes	4,200 µg/l
MTBE	28,000 µg/l
Total Petroleum Hydrocarbons (Gasoline)	12,000 µg/l

11. The Regional Board Executive Officer issued Cleanup and Abatement Order No. 6-98-18 to the J. E. Tveten Corporation on March 19, 1998. The Order required the Corporation to investigate the extent of contamination, contain the ground water plume from migrating, and remediate soil and ground water contamination. The Corporation initially complied with the Order but then ceased all corrective actions in mid-June 1998.

12. Using State Emergency, Abandoned, and Recalcitrant money, the Regional Board in August 1998 installed and began operating a pump and treat system to contain the ground water plume at the gas station.

13. The beneficial uses of ground water in the area as designated in the 1995 Water Quality Control Plan for the Lahontan Region, include municipal and domestic supply, agricultural supply, fresh water replenishment, and industrial service supply.

14. The 1995 Water Quality Control Plan for the Lahontan Region establishes water quality objectives for the protection of beneficial uses. Those objectives include the following Maximum Contaminant Levels (MCL) and Action Levels (AL) that have been established by the California Department of Health Services as safe levels to protect public drinking water supply:

Benzene	1µg/l (MCL)
Toluene	150 µg/l (MCL)
Ethylbenzene	700 µg/l (MCL)
Xylenes	1750 µg/l (MCL)
MTBE	35 µg/l (AL)

The Water Quality Control Plan contains the following narrative taste and odor objective for the Lake Tahoe Hydrologic Unit:

> Ground waters shall not contain taste or odor-producing substances in concentrations that cause nuisance or that adversely affect beneficial uses. For ground waters designated as municipal and domestic supply, at a minimum, concentrations shall not exceed adopted secondary maximum contaminant levels specified in...Title 22 of the California Code of Regulations which is incorporated by reference into this plan.

The following Taste and Odor Thresholds (TOT) are proposed as secondary water quality goals by the United States Environmental Protection Agency for drinking water. Petroleum concentrations above these levels would not comply with the narrative taste and odor objective in the Water Quality Control Plan:

Toluene	42 µg/l (TOT)
Ethylbenzene	29 µg/l (TOT)
Xylenes	17 µg/l (TOT)
MTBE	20 µg/l (TOT)
Total Petroleum Hydrocarbons (Gasoline)	50 µg/l (TOT)
Total Petroleum Hydrocarbons (Diesel)	100 µg/l (TOT)

The more stringent numeric standard is the applicable water quality objective for each constituent.

15. The ground water concentrations of Toluene, Ethylbenzene, Xylenes, MTBE, and Total Petroleum Hydrocarbons as Gasoline (Finding No. 10) exceed water quality objectives which are protective of water quality for ground water specified in the 1995 Water Quality Control Plan for the Lahontan Region. The concentrations adversely affect the ground water for its designated uses listed in the 1995 Water Quality Control Plan for the Lahontan Region: municipal and domestic supply, agricultural supply, fresh water replenishment, and industrial service supply. The levels of waste in ground water, therefore, constitute a pollution, as defined in Section 13050 of the California Water Code.

16. The underground storage tank basin on the subject property overlies shallow ground waters and is located approximately 1,300 feet upgradient from the STPUD's Arrowhead municipal supply wells. The discharge of petroleum products from the underground storage tanks has polluted the ground water and may be contributing to degradation of water in the municipal supply wells.

17. The discharge of petroleum products to the ground waters of the Lake Tahoe Hydrologic Unit as described in Finding Nos. 6 and 10 above violates a prohibition for the Lake Tahoe

Hydrologic Unit contained in the 1995 Water Quality Control Plan for the Lahontan Region. Specifically, the discharge violates and threatens to violate the following discharge prohibition in the Plan:

"3. The discharge of waste earthen material or of any other waste as defined in Section 13050(d) of the California Water Code which would violate the water quality objectives of this plan, or otherwise adversely affect the beneficial uses of water designated by this plan, is prohibited."

18. This enforcement action is being taken by this regulatory agency to enforce the provisions of the California Water Code and as such is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21000 et. seq.) in accordance with Section 15321, Chapter 3, Title 14, of the California Code of Regulation.

THEREFORE, IT IS HEREBY ORDERED that pursuant to California Water Code Section 13304, Joe Erik Tveten and Sarbjit Singh Kang shall:

1. Conduct investigation and cleanup tasks by or under the direction of a California registered geologist or registered civil engineer experienced in the area of ground water pollution cleanup.

2. Not cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into waters of the state.

3. By **October 30, 1998**, submit to the Regional Board a letter stating your intent to assume on-site remediation activities that have been initiated by the Regional Board. This letter should include the name and registration of the person that will be responsible for the operation and maintenance of the system.

4. By **November 6, 1998**, assume operation and maintenance of on-site remediation activities that have been initiated by the Regional Board. Notify the Regional Board by facsimile and telephone within one working day if the remediation system goes down for 12 hours or more.

5. By **November 16, 1998**, submit information showing that you are conducting clean up and abatement actions on site. Such information shall include a copy of a contract with a consulting firm, ground water removal rates, influent and effluent concentrations, etc. Enclose a workplan with the following items:

    a. Proposal to remediate the off-site ground water plume, identified in the June 3, 1998 document, "Report of Findings, Soil and Groundwater Investigation." Include an aggressive schedule for installing and operating a remediation system to prevent impacts to downgradient receptors.

b. Proposal to remediate soil contamination at the Beacon Gas Station. Discuss the boundaries of soil contamination at the site and propose pilot studies, if necessary. Provide cost estimates for different remedial options and state the recommended option. Include an agressive schedule for conducting soil remediation activities.

c. Proposal to define the downgradient extent of the plume not defined in previous investigations. Describe a ground water sampling method to define the vertical and lateral boundaries of contamination. Show sampling locations on a site map. Include an agressive schedule for conducting ground water investigation activities.

6. By **December 21, 1998**, following approval by Board staff, implement off-site plume containment, soil remediation or pilot tests, and conduct the ground water investigation referenced in Order No. 5.

7. By **February 11, 1999**, submit to this Regional Board a technical report with the following items:

a. Discuss the results of the ground water investigation and show the boundaries of the plume. If the lateral and vertical boundaries of the plume were not fully defined, propose an additional investigation. Describe the results of pilot tests, if conducted.

b. Discuss onsite and offsite cleanup and abatement activities conducted to date. Tabulate the monthly pumping rate for each extraction well and the total volume of treated ground water since initial operation. Tabulate monthly influent and effluent concentrations from the treatment system. List periods when the ground water extraction system is down for 12 hours or longer and provide an explanation.

c. Submit a workplan proposing monitoring wells within the plume to monitor the lateral and depth of hydrocarbon trends and outside the plume boundaries to show the plume is not expanding. Include well designs and an implementation schedule in the workplan.

d. If soil remediation has not been implemented, provide final plans and designs for clean up. Include a schedule for implementing soil remediation.

8. By **March 8, 1999**, following approval by Board staff, begin installing monitoring wells referenced in Order No. 7 above.

9. By **April 21, 1999**, submit a technical report with the following information:

a. Describe monitoring well installation and ground water sampling. The report shall include ground water elevations from wells surveyed by a state licensed surveyor or civil

engineer. Include a potentiometric map with water table contours and calculations for ground water flow direction and gradient. Non-detect ground water pollution contours for MTBE, BTEX compounds, and TPH-gasoline shall be shown on site maps. Enclose lithologic logs and well designs. Prepare geologic cross-sections for the length and width of the ground water plume.

b. Describe cleanup and abatement activities on and off the gas station property. Discuss the effectiveness of the remediation systems to contain ground water pollution and prevent impacts to downgradient receptors, based upon monitoring well sampling data, the potentiometric map, and ground water modeling. If the remediation systems are not effective, propose modifications to make them so, along with a implementation schedule.

10. Beginning **May 17, 1999**, collect water samples from all monitoring wells once every two months. Submit to the Regional Board progress reports within 45 days of sampling. Reports shall contain results of monitoring well samples and a discussion on the clean up status which demonstrates continued compliance with clean up and abatement required by this Regional Board. The reports shall include bi-monthly ground water monitoring data to indicate the concentrations of Benzene, Toluene, Xylenes, Ethylbenzene, MTBE, and Total Petroleum Hydrocarbons in ground water, and other ethers and alcohols, if present. All data shall be cumulatively tabulated. Ground water pollution contours for Benzene, MTBE, and Total Petroleum Hydrocarbons must be shown on maps in each report. In addition, a potentiometric map shall be enclosed which shows water table contours, the direction of ground water flow direction and the calculated gradient. Include a table listing the periods when the cleanup system is down for 12 hours or more and provide an explanation. Subsequent progress reports will be submitted on **July 1, September 1, November 1, January 1, March 1, and May 1 of each year**, unless revised by the Regional Board Executive Officer.

Failure to comply with the terms or conditions of this Order will result in additional enforcement action which may include the imposition of administrative civil liability pursuant to Section 13350 of the California Water Code or referral to the Attorney General of the State of California for such legal action as he or she may deem appropriate.

Ordered by:_____ Dated:_____

HAROLD J. SINGER
EXECUTIVE OFFICER